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An empirical investigation of annual reporting trends of intellectual capital in Sri Lanka

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Keywords

Intellectual capital; External capital; Internal capital; Human capital; Annual reports; Sri Lanka; Developing nations; Intellectual capital trends

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An empirical investigation of annual reporting trends of intellectual capital in Sri Lanka

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Abstract

This study examines the annual reports of each of the top 30 firms listed on the Colombo Stock Exchange in the period 1998/1999 to 1999/2000, using the 'content analysis' method. The findings indicate that the most reported accounting category during this period was external capital and the second most reported was human capital. There was an increase in the frequency of intellectual capital reporting over the 2 years, which this paper explains using political economy of accounting theory. Interestingly, the individual intellectual capital items of each capital category reported by firms in Sri Lanka differed from those found in other countries. It is hoped that the findings of this pioneering study can be used as a benchmark for future studies in Sri Lanka and in other developing countries.

Keywords: Intellectual capital; External capital; Internal capital; Human capital; Annual reports; Sri Lanka; Developing nations; Intellectual capital trends

1. Introduction

A firm's intellectual capital can be thought of as a form of 'unaccounted capital' in the traditional accounting system. The traditional accounting system looks largely at separable assets although recognition is given to some intellectual capital under the heading 'goodwill' (Davies andWaddington, 1999). Despite the fact that, theoretically, the conceptual accounting framework in countries such as Australia and Sri Lanka pays lip service to the 'balancing' of reliability and relevance when presenting information for users to make economic decisions, in practice accountants tend to lean on reliability as a prudent practice.

The heavy reliance on financial information and the general lack of intellectual capital information in the traditional accounting system has been the main obstacle to acknowledging, in practice, the importance of intellectual capital (Leadbeater, 1998). The breaking down of geographic barriers, decreasing transaction costs, and more freely available capital in the intangible economy are affecting the entire world, including firms located in developing countries. These phenomena have made intellectual capital more valuable thus allowing them to earn even higher profits (Daley, 2001). Several studies have been carried out to ascertain the status of intellectual capital reported by firms in developed economies, however, few if any studies have been carried out in a developing economy. The purpose of the present paper is to examine the 2-year trend of intellectual capital identification and codification as demonstrated in the annual reports of a sample of the top 30 firms listed on the Colombo Stock Exchange. In doing so the aim is to measure the importance placed by these firms on intellectual capital, by examining their patterns of intellectual capital reporting. To achieve this aim, the following research strategy was used. First, the disclosure content of intellectual capital categories was established from the research literature, providing a tool that was then used to assess the type, amount and quality of intellectual capital reporting disclosures. Second, the disclosure content of the intellectual capital tool was applied to a sample of Sri Lankan firms' annual reports, to identify the type, amount, and quality of disclosure. Third, the results were tested for the impact of the size of firms on the disclosure of intellectual capital. Fourth, the findings of this study were compared with previous studies carried out in developed nations. Finally, the results were used with the aim of encouraging the development of intellectual capital reporting in developing nations, by making several recommendations for intellectual capital reporting practice.

The paper is organised as follows: in Section 2, the specific literature of comparable studies carried out in developed nations is reviewed. The review reveals a dearth of studies dealing with intellectual capital in developing nations generally and South Asia particularly. Section 3 describes the research method employed to collect and analyse disclosures in the sample of annual reports (namely, content analysis and coded results using frequency and line count). The empirical evidence of the content analysis is presented in Section 4 and is discussed in relation to other similar studies in Section 5, while Section 6 provides the summary and conclusion.

2. Literature review

Until recently fewfirms have attempted to measure and assess intellectual capital (Guthrie and Petty, 2000). There are currently several frameworks on offer for measuring and reporting intellectual capital (Abeysekera, 2002c), however, the first attempt at providing such a model was made by Brooking as early as 1996. Brooking (1996) classified intellectual capital items into three major intellectual capital categories (Brooking, 1996, pp. 12–81, 129; Brooking and Motta, 1996). Subsequent authors modified the framework (Australian Society of CPAs and The Society of Management Accountants of Canada, 1999, p. 14; Dzinkowski, 1999, 2000; International Federation of Accountants, 1998, p. 7).

Annual reports are one of the audit objects where the framework could be applied (Abeysekera, 2001). They are a good proxy to measure the comparative position and trends of intellectual capital between firms, industries and countries. Much published research has used annual reports as audit objects to ascertain the status of the intellectual capital of firms within countries (Brennan, 2001; Guthrie, 1999; Guthrie et al., 1999; Olsson, 2001) and between countries (Subbarao and Zeghal, 1997). Also, annual reports represent the concern of individual corporations in a comprehensive and compact manner. Further, they are regularly produced and offer an opportunity for a comparative analysis of management attitudes and policies across reporting periods (Niemark, 1995, pp.100–101). Subbarao and Zeghal (1997) analysed the annual reports of a sample of publicly traded firms in six countries, namely, the USA, Canada, Germany, UK, Japan and South Korea, to make an international comparison of human resource information and disclosure. The authors analysed annual reports of firms in the manufacturing sector, and the financial and services sector, in each country. A total sample of 120 corporate annual reports of listed enterprises were analysed, 20 reports from each of six countries with 10 from the manufacturing sector and 10 from the financial services sector. They analysed the frequency and word count of human resource information by five broad areas. These were: information on training (training); information related to the contribution of human resources to increase the value of the corporation (value-added); diversity of the workforce which impacts the firm's image as being socially responsible (equity issues); information related to employee relations (employee relations); and compensation of executives and employees (compensation). Their study revealed several interesting results. Firstly, benefits and pensions were the most frequently disclosed information, however, employees' benefits were statutorily required to be reported in most of the countries studied. Secondly, value added by human resources to a firm was the least frequently mentioned out of all the categories. The authors believed that this was either because firms found it difficult to measure or felt that such value-added information was unimportant. Thirdly, employees featured in annual reports for their special contributions to the firm. Information about the directors' committee of human resources ranked first and second by word count but ranked 15th and 18th by frequency of disclosure. Fourthly, information on profit-sharing was not disclosed in the annual reports of firms in Japan and South Korea. The U.S. firms, on the other hand, disclosed information on sharing of profits, in relation to both stocks and stock options. In Europe, the frequency of disclosure of the number of people employed was high compared to annual reports in North America and Asia. Further, firms in Europe disclosed information on employee compensation while very few in Asia disclosed that information.

Researchers in Australia (Guthrie, 1999; Guthrie et al., 1999; Guthrie and Petty, 2000) empirically examined Australian organisational practices in managing and reporting intellectual capital. First, they reviewed the literature on government and professional policy pronouncements to identify organisations that are currently discussing intellectual capital. Second, they carried out a content analysis of the top Australian-listed firms and one other firm, ostensibly active in reporting its intellectual capital, to understand to what extent these firms report their intellectual capital. They analysed the contents in annual reports by frequency count. The research included a 'best practice' organisation as a benchmark to identify what firms were doing and what they could be doing, in reporting intellectual capital. Third, the authors carried out a number of case studies using interviews to provide a greater understanding of how firms identify, manage, measure and report intellectual capital.

The authors claim that Australia provides an ideal case study for such analysis as it is undergoing economic transformation with an increasing emphasis on new sectors such as financial services, tourism, information technology, and niche manufacturing, and with a relative decline in its traditionally strong areas of agriculture and mining. According to the authors, the Australian economy has experienced a faster economic growth during the 1990s than most other OECD (Organisation for Economic Co-operation and Development) countries and has increased its rate of productivity growth.

In undertaking their research the authors used the framework of understanding intellectual capital developed by Sveiby (1997), and categorised intangibles into internal structure, external structure and employee competence. Their study revealed that key components of intellectual capital are poorly understood, inadequately identified, inefficiently managed and inconsistently reported in Australian annual reports. On the whole, firms do not have a consistent framework for reporting intellectual capital. Even the Australian 'best practice' enterprise is in need of a comprehensive management framework for intellectual capital, especially for collecting and reporting intellectual capital information. Interestingly, where intellectual capital is reported, entrepreneurial spirit is the most frequently reported attribute.

Other findings of the Australian study include the observation that reporting external capital was more in favour with large (by market capitalisation) firms. This can be understood in the light of the emphasis in recent years on rationalising distribution channels, reconfiguring value chains and re-assessing customer value through exercises such as customer profitability analysis. Guthrie et al. (1999) identified that most of the intellectual capital information reported was on external capital (40%). Reporting of human capital (30%) and internal capital (30%) were evenly distributed. Guthrie et al. concluded from their research that Australian firms appear to have taken a conceptual approach to reporting intellectual capital. The often-stated claim in annual reports that human resources represent the most important asset of the firm is not supported by intellectual capital elements reported and measured in the remaining sections of the annual report. In other words, there is a gap between the recognition of the importance of intellectual capital and actual steps taken to give greater room to intellectual capital reporting in the agenda in Australian enterprises and public policy. Consequently Australian firms do not compare favourably with several European counterparts when assessing their ability to manage, develop, support, measure and report intellectual capital. Olsson (2001), in a study of the annual reports of the 18 largest Swedish firms in the stock market A-list, attempted to ascertain the human capital aspect of intellectual capital reporting. The study analysed the contents of annual reports based on five criteria, namely, education and development, equality of employment, recruitment, selection of employees, and CEOs' comments about personnel. However, for reasons not provided, it excluded information about the firms' stock, balance sheets and income statements, pictures and information about the board, auditing reports, holding firms, cash flow analyses, proposals for the distribution of profits, the cover pages, addresses and phone numbers, principles for valuation and accounting paragraphs, and definitions of key ratios. The outcome of the study was that, in 1998, the percentage of human resources information did not exceed 7% of the total information provided in the annual reports of each of the 18 companies. Further, the annual reports were deficient in the quality and depth of the material disclosed. The author concluded that, in the real world, there was an observable absence of transparency in human capital reporting (Olsson, 2001). Brennan (2001) carried out a similar study in Ireland with technology and people-oriented firms. The author analysed the annual reports of 11 listed firms and 10 private firms. Manufacturing firms were excluded though the author stated that the manufacturing sector is the one with the most value-added and with the greatest multiplier effect on the economy as a whole.

Intellectual capital reporting is still evolving and each of the previous studies has offered a theoretical framework to explain the results of its research. The most commonly used explanatory theories are the political economy of accounting theory and the legitimacy theory. The previous research has used political economy of accounting theory to explain various aspects of corporate reporting such as using value-added statements (Van Staden, 2002).

The PEA theory views that accounting is a means of sustaining and legitimising the current social, economic, and political, arrangements. Accounting information is used to support those groups who are currently powerful in the society (Burchell et al., 1980; Cooper, 1980; Cooper and Sherer, 1984; Tinker, 1980; Tinker and Neimark, 1987). Accounting reports are a means to construct, sustain, and legitimise the economic and political arrangements in the private interests of the firm (Guthrie and Parker, 1989). It takes the view that there are two opposing forces or principles that create tension in relations with the constituents in the arrangement (Buhr, 1998). Firms proactively provide information from their perspective to set and shape the agenda of debate and to mediate, suppress, mystify and transform the conflict (Guthrie and Parker, 1989).

On the contrary, the argument of legitimacy theorists is that firms legitimise their continued survival by taking desired actions in relation to economic, social, political, and environmental factors, in other words, in response to demands by various stakeholders or government regulation (Guthrie and Parker,

1989; Jaggi and Zhao, 1996). The legitimacy theory view intellectual capital disclosure as largely a reactive act (Gray et al., 1996, pp. 46–47; Guthrie and Parker, 1989). However, since intellectual capital reporting is proactive rather than reactive, the political economy of accounting theory appears to be more applicable to intellectual capital reporting.

3. Methodology of content analysis

For the present study, a content analysis of annual reports was carried out of the top 30 listed firms in the Colombo Stock Exchange by market capitalisation for the years ending 31 December 1998 and 31 December 1999. The study used annual reports because they represent the concerns and interests of corporations in a comprehensive and compact manner. Further, they are regularly produced and offer an opportunity for a comparative analysis of management attitudes and policies across reporting periods (Abeysekera, 2001; Niemark, 1995, pp. 100–101).

Previous research shows that, in corporate social reporting, the size of firms—in other words, the size of both total assets and total sales—is an important factor determining the extent of voluntary reporting in most areas (Gray et al., 1995, p. 62; Kirkman and Hope, 1992; Mitchell et al., 1995). The bigger firms are more likely to disclose more information (Guthrie and Mathews, 1985) and any improvements in corporate social disclosure are likely to come from bigger and foreign owned firms (Andrew et al., 1989). It is also suggested that, in aggregate terms, bigger firms are likely to possess more intellectual capital because they are more visible and have more resources at their disposal to sponsor new initiatives. Therefore, the content analysis in the present study focuses on voluntary information provided in the annual reports of big firms that is not required by an accounting standard or company law (Guthrie, 1999).

Content analysis of annual reports has been carried out in several studies of accounting and intellectual capital (Abbott and Monsen, 1979; Abeysekera, 2002a; Andrew et al., 1989; Choon et al., 2000; Guthrie, 1983; Guthrie and Mathews, 1985; Guthrie et al., 1999; Olsson, 2001; Subbarao and Zeghal, 1997). The content analysis method involves codifying qualitative and quantitative information into pre-defined categories so that a pattern can be derived in presenting and reporting that information. This methodology allows the presentation of the published information in a systematic, objective and reliable manner (Guthrie, 1983; Holsti, 1969, p. 3; Krippendorfff, 1980, p. 21). The intellectual capital information collected from the analysis of annual reports was coded into the coding sheet separately for two consecutive years. The coding sheet classified intellectual capital items by external capital, human capital and internal capital categories.

The external capital category comprised 10 intellectual capital items, the human capital category comprised 25 intellectual capital items, and the internal capital category comprised 10 intellectual capital items. The line counts and frequency of occurrence for each intellectual capital line item were recorded under the appropriate intellectual capital category. Because the data in the coding framework is too descriptive, to bring analytical rigor to data interpretation, the intellectual capital items were clustered into several intellectual capital sub-categories falling within the three intellectual capital categories. The external capital category was clustered into five sub-categories. These are brand building, corporate image building, business partnering, distribution channels and market share. The brand building sub-category includes intellectual capital items such as brands, customer satisfaction and quality standards. The corporate image-building sub-category includes intellectual capital items such as company name and favourable contracts. The business partnering sub-category includes business collaboration, licensing agreements, and franchising agreements (Abeysekera, 2002a).
The intellectual capital items in the human capital category were clustered into seven sub-categories. They are training and development, entrepreneurial skills, equity issues, employee safety, employee relations, employee welfare and employee-related measurements.

The training and development sub-category comprises know-how, vocational qualifications, career development and training programs. The equity issues sub-category comprises equity issues relating to race, gender, religion, and disability issues. The employee relations sub-category comprises union activity, employees thanked, employees featured in annual reports and employee involvement with the community. The employee welfare sub-category comprises employee and executive compensation plans, employee benefits, and employee share and option ownership plans. The employee-related measurements sub-category comprises value-added statements, employee numbers, professional experience, education levels, expert seniority and age of employees (Abeysekera, 2002a; Subbarao and Zeghal, 1997).

The intellectual capital items in the internal capital category are clustered into four sub-categories: these are processes, systems, philosophy and culture, intellectual property, and financial relations. The processes sub-category includes both management and technological processes. The systems sub-category includes both information systems and networking systems (Abeysekera, 2002a). The frequency of reporting was determined by the number of times an intellectual capital item is described either qualitatively or quantitatively. In the word count category, the method of counting lines (sentences) was chosen as the context unit instead of word, paragraph or page, to ensure that these units are measured to establish their precise meaning. There are other reasons for choosing sentences as the unit of analysis: sentences are easily identifiable wholes (Carney, 1972, p. 158); And sentences are commonly preferred in written communication when the task is to infer meaning (Gray et al., 1995). Furthermore, for the purposes of this study, the line count method is more appropriate than the word count in drawing inferences from narrative statements Also, the line count method provides a more appropriate starting point from which to convert charts, tables and photographs into equivalent lines so that the text, charts, tables, and photographs can be compared on a common basis.

The study employed semantic content analysis whose purpose is to count pre-determined intellectual capital items referred to in the annual reports (Andren, 1980, p. 56). The ordinal scale consisting of the units '−1, 0, 1'was used as frequency scores to identify items relating to intellectual capital (in the frequency analysis), and scores for each line (sentence) item relating to intellectual capital (in the line count analysis). The '−1' represents an intellectual liability item, '0' not an intellectual item, and '1' an intellectual asset item. The total count for a given intellectual capital item represents the net frequency or line count of intellectual capital.

4. Results

The results of the 2-year study indicate that firms in Sri Lanka reported an overall increase in all categories of intellectual capital. The most reported category was external capital, which increased over the 2 years. The human capital was the second most reported category and it maintained its share over the 2 years. However, the least reported was internal capital and it decreased over the 2 years as shown in Table 1: overall results by intellectual capital category.

Table 1
Overall results by intellectual capital category

	1998/1999 frequency	1999/2000 frequency	1998/1999 line count	1999/2000 line count
Internal capital	412	413	1684	1491
External capital	702	964	2984	3319
Human capital	596	790	3260	3200
Total	1710	2185	7928	8010

Brand building was the most reported sub-category in the external capital category. Corporate image building was the second most reported sub-category and the least reported was the market share sub-category as shown in the Appendix A. Employee relations were the most reported sub-category in the human capital category, which includes 'featuring of employees' intellectual capital attribute. The featuring of employees accounted for nearly one half of the results reported in the human capital category. Thanking employees for their efforts, and relationships with unions, were also notable items included in the employee relations' sub-category.

The employee measurement sub-category, which includes value added by employees, was the second most reported item. The third most reported sub-category was training programs. The least reported was the sub-category of equity related issues. In the internal capital category, processes were the most reported, followed by systems. There was little reported on intellectual property and in that the only one reference was to patent and trademark. The least reported item was the financial relations sub-category.

5. Discussion

This section discusses the results and provides an analysis of results and comparative analysis, as the comparative analysis has a great deal of value in and of itself.

5.1. Analysis of results

The market capitalisation of the top 30 firms declined during 1998 (Rs. 74 billion), 1999 (Rs. 67 billion), and in 2000 (Rs. 53 billion) (CSE, 1998, p. 33; 1999, p. 50; 2000, p. 67). However, intellectual capital reporting increased over the same period, and that could be attributed to the following two reasons. First, the change in market capitalisation had no impact on intellectual capital reporting. The overall increase in intellectual capital indicates that reporting was proactive rather than reactive, and can be explained by the political economy of accounting theory. According to this theory, corporate disclosure is a proactive process. Information is provided from the management's perspective and is designed to set and shape the agenda according to its own self-interest (Burchell et al., 1980; Cooper, 1980; Cooper and Sherer, 1984; Tinker, 1980; Tinker and Neimark, 1987). The results found here contrast with the findings on social and environmental disclosure in other countries (Hughes et al., 2001), in which user groups are seen to exert pressure for firms to report intellectual, in other words where the reporting is seen as reactive rather than proactive (Guthrie and Parker, 1989). On the contrary, user groups do not exert any pressure urging firms to report about intellectual capital but it can be argued that it is in their own interest to report such information to stakeholders to enhance the perceived value of the firm. Second, the government of Sri Lanka has recently taken several steps to drive its economy towards a knowledge-based economy. These steps include the recent amendments to the *Code of Intellectual Property Act 1979* (Wickremaratne, 2000), identifying technology as a major thrust area (BOI, 2000) and providing incentives to technologically-based industries through the Board of Investment. Such an environment may have encouraged firms to report more intellectual capital. It could be possible that brand building was the most reported item by firms in Sri Lanka, because these firms have to compete with firms in developed economies with visible brand names. The competition over brand names has increased due to less transparency in geographical barriers for trade, lower transaction costs, and more freely available capital in the modern economy (Daley, 2001). The second most reported item was corporate image. The top 30 firms in the sample were visible entities because of their size. Their corporate image is an invaluable asset to promoting their firm's value. In addition to promoting their corporate image directly, they also appeared to promote their image indirectly as a responsible corporate citizen taking care of the community and the environment. Firms often reported about community projects they carry out with locals in the area, their harmonious relationships with the community and funding provided on these projects.

Business partnering is the third most reported sub-category. The lower level of reporting could be attributed to the fewer franchising and licensing agreements that firms in Sri Lanka have with international firms. As previous research points out, it could be due to firms in developed countries obtaining less return in international joint ventures with firms based in developing countries (Ueng et al., 2000). In relation to human capital, entrepreneurial spirit was the most frequently reported attribute of human capital in Australia, whereas entrepreneurial spirit was one of the least reported in Sri Lanka. The differential reporting in human capital category could be explained by the fact of firms in Sri Lanka can be attributed to several factors including cultural, social, and economic. In particular, it could be due to firms in Sri Lanka borrowing research and development from firms located overseas, as a result of which their staff do not require a high level of entrepreneurial skills in innovation. The study showed that most firms relied on low cost technologies such as databases (for example, lotus notes) to capture and share knowledge. Previous literature concurs that it is usual for developing countries to acquire technologies when they are reasonably affordable and proven to be effective by firms in developed countries, as a way of avoiding the risk associated with innovation (Malhotra, 2000). Firms also reported little about intellectual property. This could be due to firms focusing on reporting on their core competencies rather than processes and inputs, which lead to those core competencies. The low reporting could also be due to proactive reporting by the management to set and shape the agenda of debate as explained by the political economy of accounting theory.

5.2. Comparative analysis

Research similar to this study has been carried out by Guthrie (1999), Guthrie et al. (1999), Guthrie and Petty (2000), Subbarao and Zeghal (1997), Olsson (2001), and Brennan (2001). In line with research carried out in Australia (Guthrie, 1999; Guthrie et al., 1999; Guthrie and Petty, 2000), the present paper has found that firms in Sri Lanka did not have a consistent and theoretical framework in which to report intellectual capital. Although few annual reports in Australia, such as those of Lend Lease and Morgan and Banks, had a separate section to describe intellectual capital, it was non-existent in annual reports examined in Sri Lanka. Reporting external capital was more in favour with firms both in Australia (40%) and Sri Lanka (44%). The proportion of human capital items reported in Sri Lanka (36%) was more than that which was reported in Australia (30%). The proportion of internal capital reported by firms in Sri Lanka (20%) was less than in Australia (30%).

The most reported attribute of internal capital in Australia was 'processes' and was followed by management philosophy and information systems. The most reported attribute in internal capital in Sri Lanka was also 'processes' followed by information systems and management philosophy. When comparing the studies of two countries there are methodological differences that should be noted. The framework used in Australia included a fewer number of human capital attributes than the framework used in this thesis. Further, this paper covered two consecutive years and used as its sample the top 30 firms by market capitalisation. The Australian study, on the one hand, sampled the top 20 firms by market capitalisation over 1 year. The sample size in Sri Lanka was more representative of firms listed on the Colombo Stock Exchange since it is a small market (64.2% in 1998; 59.93% in 1999). In contrast, the sample size in Australia may not be representative of firms listed on Australian Stock Exchange because it is a bigger market.

Although the study by Subbarao and Zeghal (1997) is fundamentally different from this research study with regard to sample selection of firms, in analytical rigour, geography of comparison and objectives of the study, it brings out important findings to compare with the human capital category. A contrasting difference in the results is that Subbarao and Zeghal (1997) reported value added by human resources as one of the least frequently related attributes, whereas firms in Sri Lanka disclosed it as a more frequently reported intellectual capital item (included in the employee measurement sub-category). The findings of this study were also different from Olsson's (2001) for two reasons. First, Olsson compared human capital with the total information in the annual report at the conclusion, whereas this paper has provided an ongoing review of human capital in the light of intellectual capital. Second, Olsson tends to assume that reporting most in annual reports is most important to the firm, which is not necessarily true in reality. The Swedish study also excluded information about the companies' stock, balance sheet and income statement, auditing report, holding firms, cash flow analysis, proposal for the distribution of profits, cover pages, addresses and phone numbers, principles for valuation and accounting paragraphs, and definitions of key ratios. However, such information was included and reviewed in this study for analysis. Finally, Olsson examined only 18 firms of the A-list of the Swedish stock exchange and their sample may not be as thoroughly representative of the Swedish stock exchange as the present study for similar reasons mentioned earlier with regard to the Australian study. The study carried out in Ireland by Brennan (2001) is also fundamentally different from this study as their study analysed only technology- and people-oriented firms. Brennan's study was also different with regard to the sample size and the nature of the sample as it analysed the annual reports of 11 listed firms and 10 private firms.

6. Concluding remarks

The empirical site, Sri Lanka, and the general purpose of conducting research on intellectual capital reporting in developing countries were important but hitherto under-researched areas. This research specifically attempted to meet a desperate need for material in the subject area. In that process it reached some interesting observations as presented above. The study showed that firms in Sri Lanka emphasised intellectual capital and have covered a wide range of intellectual capital items. However, not a single annual report has explicitly made reference to the term 'intellectual capital' indicating that these reports lack a framework and a consistent approach for reporting intellectual capital. The outcome of the Sri Lanka study was similar to those of other studies done elsewhere in the world (Olsson, 2001; The Economist Intelligence Unit, 1998, p. 3) in that, although firms talk of human capital as the most important asset, in practice the most reported category is external capital. However, this study confined its analysis to annual reporting practices. A series of case studies can confirm whether firms place a greater importance on human capital when managing their intellectual capital. This study has its limitations. First, there could be other firms actively involved in creating, managing and reporting intellectual capital. These might be private sector firms not listed on the Colombo Stock Exchange (e.g. Unilever Sri Lanka), public sector corporations and other public sector firms that can match bigger firms listed in the stock exchange in terms of their market capitalisation (e.g. Sri Lanka Telecom and Bank of Ceylon). Although such an examination is potentially fruitful, it is outside the scope of this study. Second, this study expanded on the previously established intellectual capital framework by adding other intellectual capital items. Consequently there are limitations when comparing the results of studies which use different frameworks. Third, this study did not address emotional assets and liabilities of firms, which could have an impact on reporting of intellectual capital since emotional capital tends to activate or de-activate intellectual capital and accounting capital (Abeysekera, 2002b).

Appendix A

Overall reporting pattern in annual reports

	1998/1999 frequency	1999/2000 frequency	1998/1999 line count	1999/2000 line count
Internal capital	**412**	**413**	**1684**	**1491**
External capital	**702**	**964**	**2984**	**3319**
Human capital	**596**	**790**	**3260**	**3200**
Total	**1710**	**2185**	**7928**	**8010**

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